

CLAIMS

1. A method of creating a federation of appliances, comprising the steps of:

5 placing an introduction device in close proximity to a first appliance;

establishing a secure communications channel between the introduction device and the first appliance;

10 transferring security information of the federation between the introduction device and the first appliance;

placing the introduction device in close proximity to a second appliance;

establishing a secure communications channel between the introduction device and the second appliance; and

15 transferring the security information from the introduction device to the second appliance, wherein the first and second appliance are thereafter members of the federation.

20 2. The method of claim 1, further comprising the step of:

after placing the introduction device in close proximity to the first appliance, the introduction device collecting a first device key from the first appliance.

25

3. The method of claim 2, wherein the introduction device uses the first device key to communicate with the first appliance.

30 4. The method of claim 1, wherein the security information comprises a group key.

5. The method of claim 4, further comprising the steps of:

providing a new group key to the first appliance, the new group key overwriting the previously stored group key,
5 thereby removing the first appliance from the federation.

6. The method of claim 1, wherein the placing of the introduction device in close proximity to the first and second appliances comprises placing the introduction device
10 in direct contact with the first and second appliances.

7. The method of claim 1, wherein the establishing of a secure communications channel between the introduction device and the first and second appliances comprises using
15 cryptographic techniques.

8. The method of claim 7, wherein the security information comprises cryptographic keys and access control information.

20 9. A method of adding an appliance to a federation of appliances, comprising the steps of:

placing an introduction device in close proximity to the appliance;

25 establishing a secure communications channel between the appliance and the introduction device; and

transferring security information of the federation from the introduction device to the appliance, wherein the appliance is thereafter a member of the federation.

30

10. The method of claim 9, further comprising the step of:

after establishing the secure communications channel, the introduction device collecting a device key from the
5 appliance.

11. The method of claim 10, wherein the introduction device uses the device key to communicate with the appliance.

10

12. The method of claim 9, wherein the placing of the introduction device in close proximity to the appliance comprises placing the introduction device in direct contact with the appliance.

15

13. The method of claim 9, wherein the establishing of a secure communications channel between the introduction device and the appliance comprises using cryptographic techniques.

20

14. The method of claim 9, wherein the security information comprises a group key.

15. The method of claim 9, wherein the security information comprises cryptographic keys and access control
25 information.

16. An introduction device for assigning an appliance to a federation of appliances in a secure manner, comprising:

5 a proximity based communications port that permits
secure transfer of information between an appliance and the
introduction device when the communications port is placed
in close proximity to an appliance communications port;

10 a processor connected to the proximity based
communications port; and

15 a memory connected to the processor for storing
security information the processor communicates with the
appliance such that the processor reads the security
information from the memory and transmits the security
information to the appliance via the proximity based
communications port.

17. The introduction device of claim 16, further comprising a switch connected to the processor for
signaling the processor to communicate with the appliance.

20 18. The introduction device of claim 17, wherein the
switch is integral with the proximity based communications
port.

25 19. The introduction device of claim 16, further
comprising a communications interface connected to the
processor for transmitting to and receiving data from other
appliances in the federation of appliances.

30 20. The introduction device of claim 16, wherein the
introduction device comprises one of a mobile telephone, a
personal digital assistant and a wand.

21. The introduction device of claim 16, wherein the security information transmitted to the appliance comprises access control information, cryptographic keys, or a group key.

22. The introduction device of claim 16, wherein the proximity based communications port comprises a mirror image of the appliance communications port such that the 10 proximity based communications port mates with appliance communications port when placed in contact therewith.

23. A smart appliance that is capable of communicating with other smart appliances, comprising:

15 a proximity based communications port that permits secure transfer of information between the smart appliance and an introduction device when the communications port is placed in close proximity to a proximity based communications port of the introduction device;

20 a processor connected to the proximity based communications port; and

25 a memory connected to the processor for storing security information, wherein the processor communicates with the introduction device such that the processor reads the security information from the memory and transmits the security information to the introduction device via the proximity based communications port.

24. The smart appliance of claim 23, further comprising a communications interface connected to the processor for allowing the smart appliance to communicate with other smart appliances.

25. The smart appliance of claim 23 further comprising a switch connected to the processor for signaling the processor to communicate with the
5 introduction device.

26. The smart appliance of claim 25 wherein the switch is implemented in software.

10